Utah Department of Transportation



Supplemental Specifications for

2005 Standard Specifications

FOR ROAD AND BRIDGE CONSTRUCTION

U.S. Standard Units (Inch-Pound Units)

Memorandum utah department of transportation

DATE: March 2, 2006

TO: Holders of Hard Copy of Standard Specifications

FROM: Barry Axelrod, CDT

Standards and Specifications

SUBJECT: Supplemental Specifications Distribution, dated March 2, 2006

Applicable files for the change are attached. Maintain these files as a supplemental update to the UDOT Standard Specifications dated January 1, 2005. No pages are to be removed or replaced in the basic book, electronic or hard copy.

If you are in need of electronic copies of any Standard or Supplemental Specification please refer to the Standards and Specifications Web site at http://www.udot.utah.gov/index.php?m=c&tid=302. From there select the **2005 Standards** subtopic.

Please note that the 2005 Standards are still in effect. There is no plan to issue a new set of Standards for a 2006 version.

If you have any questions or problems with the electronic files contact me at 801-964-4570 or by email at baxelrod@utah.gov.

Attachments

Listing of Supplemental Specifications

Issue Date: March 14, 2005

Revised February 24, 2005

Section 01282M Article 1.1 Paragraph D added and Article 1.14 Paragraph E replaced.

Section 01284 New section added

Section 02785M Replaces Table 1 to correct reference callout from AASHTO to ASTM

Section 02843 Entire section revised.

Section 06055M Article 1.2 Paragraph F added and Article 2.2 Paragraphs A and D modified.

Issue Date: May 10, 2005

Revised April 28, 2005

Section 02827 New section added

Issue Date: July 12, 2005

Revised June 30, 2005

Section 02745 Entire section revised.

Section 03412M Article 1.3 revised, Article 1.4 Paragraph E added, Article 1.5 Paragraph C added, and Article 3.7 added.

Section 05120 M Article 1.3 revised, Article 1.4 Paragraph D added, and Article 3.5 added.

Issue Date: September 12, 2005

Revised August 25, 2005

Section 01452M Article 3.1 Paragraph B item 1 replaced.

Section 01571 Entire section replaced.

Section 01574M Article 1.1 replaced, Article 1.3 Paragraph B added, and Article 3.1 Paragraphs F and G added.

Section 01721M Article 1.2 replaced.

Section 02842M Article 1.3 Paragraph C and Article 2.1 Paragraph A replaced.

Section 13551M Article 1.3 replaced, Article 2.1 replaced, Article 3.3 Paragraph C replaced, Article 3.5 Paragraph C replaced, and Article 3.5 Paragraph D added.

Section 13552M Article 1.1 Paragraph A replaced, Article 1.3 replaced, Article 2.2 through Article 2.6 replaced, Article 2.8, Paragraph C added, and Article 3.2 replaced.

Section 13553M Article 1.2 paragraphs I and J replaced, Article 1.3 replaced, Article 2.1 Paragraphs H and I replaced, Article 3.1 Paragraph F replaced, Article 3.1 Paragraph Q3 replaced, Article 3.2 Paragraph A replaced, Article 3.3 Paragraph F replaced, Article 3.4 Paragraph C added, and Article 3.5 Paragraph C added.

Section 13554M Article 2.2 replaced and Article 3.1 Paragraph N through H replaced.

Section 13555M Article 1.3 Paragraph E added, Article 2.1 Paragraph A replaced, Article 3.1 Paragraph D deleted, Article 3.2 Paragraphs C, G, and H replaced, Article 3.4 replaced, and Article 3.6 Paragraphs A and B replaced.

Section 13556 Entire section revised.

Section 13561M Article 2.1 Paragraph K added, Articles 3.1 Paragraphs E through G replaced, and Article 3.2 Paragraph A replaced.

Section 13594M Article 2.3 Paragraph A replaced, Article 2.3 Paragraph C replaced, Article 2.4 replaced.

Issue Date: November 9, 2005

Revised October 27, 2005

Section 00725M Article 1.2, paragraph B added, Article 1.4 replaced.

Section 02745 Entire section originally revised July 12, 2005. This change corrected error in Table 13, Float Test.

Issue Date: March 2, 2006

Revised February 23, 2006

Section 00555M Article 1.6, paragraph A replaced.

Section 00725M Article 1.2, paragraph B added, Article 1.4 replaced, Article 1.18 Paragraph C1 added, Article 1.18 Paragraph D replaced, and Article 1.18 Paragraphs E – I replaced. (Replaces Supplemental Specification 00725M issued November 9, 2005.)

Section 00820M Article 1.2 replaced, Article 1.15 replaced, and Article 1.16 replaced.

Section 01280M Article 1.3 replaced and Article 1.10 deleted.

Section 01574M Article 1.1 replaced, Article 1.3 Paragraph B added, Article 1.4, paragraph B1 added, Article 3.1 Paragraphs F and G added, and Article 3.4, paragraph A replaced. (**Replaces Supplemental Specification 01574M issued September 12, 2005.**)

Section 01721M Article 1.1, Paragraph A replaced, Article 1.2 replaced, Article 1.5, Paragraph F and G replaced, Article 3.3, Paragraph C deleted, and Article 3.11 replaced. (Replaces Supplemental Specification 01721M issued September 12, 2005.)

Section 02317 Entire section revised.

Section 02748M Article 2.1, Paragraph A replaced, Article 2.2, Paragraph A replaced, and Article 3.2 replaced.

SECTION 00555M

PROSECUTION AND PROGRESS

Delete Article 1.6, paragraph A and replace with the following:

A. Develop a baseline construction schedule using Primavera 5.0 (or the current version) or Primavera Contractor. Accurately reflect in the schedule the proposed approach to accomplish the work outlined in the Contract documents conforming to all requirements of this article.

SECTION 00725M

SCOPE OF WORK

Add Article 1.2, paragraph B:

B. UDOT Partnering Field Guide

Delete Article 1.4 and replace with the following:

1.4 PARTNERING

- A. Partnering does not change the legal relationship of the parties to the Contract, and does not relieve either party from any of the terms of the Contract.
- B. The Department encourages the formation of a strong partnership among the Department, the Contractor, and the Contractor's principal subcontractors. This partnership draws on the strengths of each organization to identify and achieve mutual goals.
- C. Implement partnering in accordance with UDOT's Partnering Field Guide. Refer to http://www.udot.utah.gov/index.php/m=c/tid=719.
 - 1. Determine jointly between the Contractor and Engineer to either use an independent third party firm to implement facilitated partnering or to jointly share in those responsibilities. Determine jointly between the Contractor and Engineer a facilitator for the meeting and determine attendees, agenda, duration, and location of a partnering workshop.
 - 2. Contact the Engineer within 30 days of Notice of Award and before the Preconstruction Conference to implement a third party facilitated partnering initiative.
- D. Both the Department and the Contractor agree to, and share equally any costs to accomplish partnering.
- E. Use UDOT's Partnering Field Guide to determine workshop attendance. Refer to http://www.udot.utah.gov/index.php/m=c/tid=719.
- F. Follow-up workshops may be held periodically as agreed by the Contractor and the Department.

Scope of Work 00725M – Page 1 of 2

Add the following to article 1.18 Paragraph C:

1. The Department does not accept VE proposals related to pavement section structure, strength or performance.

Delete article 1.18 Paragraph D and replace with the following:

D. The Department rejects proposals that provide equivalent options to those already in the contract.

Delete article 1.18 Paragraphs E – I and replace with the following:

- E. The Department may reject proposals that:
 - 1. Contain revisions the Department is already considering or has approved for the Contract.
 - 2. Do not generate sufficient savings.
 - 3. Do not provide additional information as requested by the Department including requests for field investigation results and surveys, design computations, and field change sheet for proposed design changes.
- F. If the proposal is rejected, the Contractor has no claim to additional costs or delays, including development costs, loss of anticipated profits, or increased material or labor costs.
- G. The Engineer can reject all unsatisfactory work resulting from an approved proposal.
 - 1. Remove rejected work and reconstruct under the original contract provisions at no additional cost to Department.
 - 2. Reimbursement for modifications to the proposal to adjust field or other conditions is limited to the total amount of the contract bid prices.
 - 3. Rejection or limitation of reimbursement is not basis for any claim against the Department.
- H. The Department does not consider savings generated by contingency items when it is reduced as part of a VECP, unless it can be tied to a reduction in contract time.

SECTION 00820M

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

Delete Article 1.2 replace with the following:

1.2 REFERENCES

- A. OSHA Safety and Health Regulations for Construction
- B. UDOT Construction Safety and Health Manual
- C. UDOT Owner Controlled Insurance Program (OCIP)
- D. U. S. Code of Federal Regulations

Delete Article 1.15 and replace with the following:

1.15 RESPONSIBILITY FOR DAMAGE CLAIMS

- A. To the extent allowed by law, protect, indemnify, and hold the State of Utah, the Department, and their officers, agents, and employees (State) harmless from and against all claims, demands, damages, and causes of action of every kind or character on account of bodily injuries, death, or damage to property arising out of, resulting from, or in any way connected with, the performance of the Contract.
- B. Defend the Department against all third party or other lawsuits arising out of or resulting from the Contract Work. The Department may require that the Contractor represent its interests or may choose to have separate counsel. If the Department has its own counsel, the Department pays for its own attorneys' fees, costs, and expenses. Upon determination by the court of the proportionate liability for the claim, total defense costs will be apportioned accordingly. For example, if the court finds the Department to be 60 percent liable for the claim and the Contractor 40 percent liable, then the Department pays 60 percent of the total defense costs while the Contractor pays 40 percent.

- C. If served with a lawsuit or Notice of Claim, Contractor and the Department agree to provide each other with a copy of the summons and complaint within two business days of receipt. Do not file a responsive pleading on behalf of the Department until receiving written notice that the Department chooses to have Contractor handle the defense. The Department will provide the Contractor such written notice in a timely manner allowing the Contractor adequate time to respond to the summons.
- D. If the parties have separate counsel, they agree to cooperate to the fullest extent possible, subject to privileges and ethical rules.
- E. Provide insurance as defined in article 1.16 below from reliable insurance companies authorized to do business in Utah, rated "A" or better and with a financial size category of Class VII or larger by A.M. Best Company, at the time of contract execution.
- F. Comply with the following insurance claims notification and processing procedures:
 - 1. Notify the Engineer of all claims within seven days of notification.
 - 2. Prior to the final acceptance of the project provide written notification for all pending claims to the Engineer.
 - 3. Notify claimants of denied or partially denied claims of \$5,000.00 or less of their right to request re-examination by the

UDOT Claims Re-Examination Board 4501 South 2700 West

West Valley City, UT 84114-8430

Phone: (801) 964-4556

- a. The information provided to the claimant includes:
 - 1) A time deadline for requesting re-examination equal to seven days after notification of denial or partial denial
 - 2) Address and name of the person to whom it should be directed
 - 3) General information helpful in making a determination
- 4. The Board can waive the time deadline.
- G. Cooperate with the UDOT Claims Re-examination Board in resolving disputes regarding denials or partial denials from an insurance carrier.
 - 1. Provide any information possessed by the carrier that the Board believes is pertinent to the determination.
 - 2. The Board may refer to an insurance carrier's decision and the reason for it.
 - 3. The determination is based on general applicable standards of insurance adjusting.

- 4. The Board does not grant in-person hearings, but relies on documentation prepared by the Contractor, the insurance carrier, the claimant, and the Department.
- 5. Neither the insurance carrier nor the Contractor has the right to intervene in a re-examination before the Board.
- 6. The board decides the claim as expeditiously as possible.
- 7. The decision by the UDOT Claims Re-examinations Board is administratively final.
- H. The Department deducts from the Contractor's pay estimate claims that the Contractor's liability insurance carrier denied but are directed to be paid by the UDOT Claims Re-Examination Board.

Delete Article 1.16 and replace with the following:

1.16 INSURANCE REQUIREMENTS:

For projects where the Engineers Estimate is equal to or greater than \$4,000,000 and the ability to select an alternate is provided for in the electronic bid file, the Contractor may bid one of two insurance alternates allowed in these bid documents. Alternate #2 is not applicable on projects where the Engineers Estimate is less than \$4,000,000.

Alternate #1:

Provide insurance per the requirements listed in this section. Include cost for such insurance in the contractors bid prices. When provided for in the electronic bid file, selection of this alternate is indicated by entering \$1.00 in the unit price field for the Contractor supplied insurance bid item.

- A. Workers' Compensation Insurance
 - 1. Provide Workers' Compensation Insurance to cover full liability. As a minimum, comply with the statutory limits defined by the State of Utah.
- B. General Liability Insurance
 - 1. Provide General Liability insurance with the following minimum limits of liability:
 - a. \$1,000,000 Bodily Injury and Property Damage Each Accident
 - b. \$2,000,000 General Aggregate
 - c. \$2,000,000 Products and Complete Operations Annual Aggregate
- C. Excess General Liability Insurance
 - 1. Provide Excess Liability Insurance with the following minimum limits:
 - a. \$5,000,000 Each Claim
 - b. \$5,000,000 Aggregate

- D. Automobile Liability Insurance
 - 1. Provide Automobile Liability Insurance for claims arising from the ownership, maintenance, or use of motor vehicles involved in project work with the following minimum limits:
 - a. \$1,000,000 Combined single Limit Bodily Injury and Property Damage per Occurrence
- E. Provide the following for all required liability insurance policies:
 - 1. Where and when applicable, name as insured, only in respect to work to be performed under this Contract, the State of Utah and all institutions, agencies, departments, authorities, and instrumentalities, and while acting within the scope of their duties, all volunteers as well as members of governing bodies, boards, commissions, and advisory committees.
 - 2. Coverage for the above insured is primary and not contributing.
 - 3. Incorporate into the insurance policy this statement: "Insurance coverage is extended to include claims reported up to one year beyond the date of substantial completion of this Contract."
- F. Provide the Department with certificates of insurance showing that they are covered as required above prior to entering the project site or beginning project work. The certificates will also state that the policies required are endorsed to give the Department (the Engineer) not less than 30 days prior notice in the event of cancellation or change in coverage. Within five days of receiving written notice that the Contractor intends to cancel its insurance or change coverage to the extent that it does not comply with the contract requirements, the Department may object. If Contractor cancels coverage or changes coverage despite that objection, the Department may cancel this Contract immediately or sue for an injunction or any other legal remedy to require Contractor to keep its current coverage.
- G. Regardless of the Contractor insurance requirements required in this section, insolvency, bankruptcy, or failure of any insurance company to pay all claims accrued does not relieve Contractor of any obligations.
- H. Endorse all policies to include waivers of subrogation in favor of the Department.
- I. If the Department discovers that the Contractor's policies are not endorsed to the Department, the Engineer gives the Contractor written notice that the certificates need to be modified so as to give the Department the required endorsements.
 - 1. Complete within 10 days.
 - 2. Provide new certificates to the Engineer at that time.
 - 3. If certificates are not obtained, the Department may terminate the Contractor for Default as defined in Section 00555.

Alternate #2

The Contractor may elect to participate in the UDOT Owner Controlled Insurance Program (OCIP). If the Contractor selects the OCIP Alternate, insurance will be furnished at no cost to the Contractor. However, for bid comparison purposes, contractors that select the OCIP Alternate must calculate 3 percent of the total bid price and enter that amount into their bid by inserting the 3 percent amount into the unit price field for the OCIP Alternate insurance bid item. Failure to do so will result in the bid being declared non-responsive.

A. OCIP Alternate: Refer to UDOT Owner Controlled Insurance Program (OCIP) General Conditions for coverage limits and conditions on the UDOT website. Refer to http://www.udot.utah.gov/index.php/m=c/tid=719.

SECTION 01280M

MEASUREMENT

Delete Article 1.3 and replace with the following:

1.3 GENERAL MEASUREMENT OF QUANTITIES

- A. All work completed under the Contract is measured in U. S. Standard measure.
- B. The methods of measurement and computations for determining quantities of material furnished and of work performed under the Contract are methods generally recognized as conforming to good engineering practice.
- C. The Department measures and determines quantities of material furnished and work performed.
- D. When the plan quantities for a specific portion of the work are designated to be the pay quantities for the Contract:
 - 1. They are the final quantities for which payment for such specific portion of the work will be made, unless the Engineer revises the plan dimensions.
 - 2. If revised dimensions result in an increase or decrease in the quantities of work, Department will revise the final quantities for payment in the amount represented by the authorized changes in the dimensions.
- E. When requesting additional compensation on the basis of adjustment to quantities in the bid proposal for items paid as "plan quantity," provide all computations, plots, and supporting documentation necessary for the Engineer to evaluate and verify adjusted quantities.
 - 1. All work associated with providing computations, plots, and supporting documentation is at no cost to the Department, except:
 - a. When the Engineer revises plan dimensions.
 - b. When the adjusted quantity differs from the plan quantity by more than 10 percent, work required to provide computations, plots, and supporting documentation will be paid for as extra work.
- F. Measurements for area computations:
 - 1. Longitudinal measurements: made horizontally.
 - 2. Transverse measurements: the neat dimensions shown on the plans.

Measurement 01280M - Page 1 of 2

- G. Computing volumes of excavation: Average end area method, or computer generated Digital Terrain Model (DTM) method, unless the Engineer and Contractor agree in writing to an alternate method.
- H. Measure complete structure or structural unit, signal or lighting system, (lump sum) unit to include all necessary fittings and accessories.
- I. Structures: Neat lines shown on the plans or as altered to fit field conditions.
- J. Standard manufactured items (fence, wire, plates, rolled shapes, pipe conduit, etc.), are identified by gauge, unit, weight, section dimensions, etc.
 - 1. Identification will be nominal weights or dimensions.
 - 2. Use industry-manufacturing tolerances, unless more stringently controlled by specifications.
- K. Items measured by the foot, (pipe culverts, guardrail, underdrains, etc.): measure parallel with the base or foundations upon which structures are placed.
- L. The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing: measured in fractions of inches.
- M. Materials specified to be measured by the cubic yard may be weighed and converted to cubic yard for payment purposes, when requested by the Contractor and approved by the Engineer in writing. Engineer determines and Contractor agrees to the factors for conversion from weight measurement to volume before this method of measurement of pay quantities is used.
- N. Rental of equipment: measure hours of actual working time and necessary traveling time of the equipment within the limits of the project.
 - 1. If the Engineer orders special equipment in connection with force account work, the Department measures travel time and transportation to the project.
 - 2. If the Engineer orders equipment held on the project on a standby basis, the Department pays the agreed rental rate minus the operating cost.

Delete Article 1.10

SECTION 01574M

ENVIRONMENTAL CONTROL SUPERVISOR

Delete Article 1.1 and replace with the following:

1.1 SECTION INCLUDES

- A. Description of the responsibilities of the Contractor's Environmental Control Supervisor (ECS) to administer environmental compliance on the project.
- B. When no bid item is included in the proposal for "Environmental Control Supervisor" then this section does not apply.

Add Article 1.3, paragraph B:

B. Utah Storm Water General Permit for Construction Activities

Add Article 1.4, paragraph B1:

1. Submit a copy of the final, signed form to the Engineer.

Add Article 3.1, paragraphs F and G

- F. Know what is contained in Utah Storm Water General Permit for Construction Activities Permit No.: UTR100000 and comply with the outlined conditions. Refer to http://www.udot.utah.gov/index.php/m=c/tid=719.
- G. When a U.S. Army Corps of Engineers Nationwide or Individual Permit or a Utah Division of Water Rights Regional General Permit 40 is issued on a project, know and follow the General and Special Conditions associated with these permits.

Delete Article 3.4, paragraph A and replace with the following:

A. At the commencement of earth-moving activity, start performing inspections of all temporary erosion control measures a minimum of once every seven calendar days and within 24 hours after any storm event greater than 0.5 inch. Conduct inspections a minimum of once per month when construction site activities are temporarily or seasonally shut down.

SECTION 01721M

SURVEY

Delete Article 1.1, Paragraph A., and replace with the following:

A. Schedule, coordinate, and provide all construction surveying, staking, measurement, and calculations essential to complete the project and properly control the entire work.

Delete Article 1.2 and replace with the following:

- A. Section 01280: Measurement
- B. Section 02765: Pavement Marking Pain

Delete Article 1.5, Paragraph F and G and replace with the following:

F. After project completion, return to the Engineer all surveying and design data and provide a red-lined hard copy plan set showing as-constructed features denoting changes from the original design.

Delete Article 3.3, Paragraph C.

Delete Article 3.11, and replace with the following:

3.11 GUARDRAIL AND CRASH CUSHION

- A. Stake guardrail vertical and horizontal control at a maximum spacing of 25 ft on tangent sections and 10 ft on curved sections unless otherwise approved.
- B. Obtain Engineer's approval and field verification of staking prior to installation.

Survey 01721M - Page 1 of 1

SECTION 02317

STRUCTURAL EXCAVATION

Delete Section 02317 in its entirety and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Excavate and backfill for constructing bridges, foundations, box culverts, pipe culverts, drains, and other structures.

1.2 RELATED SECTIONS

- A. Section 00820: Legal Relations and Responsibility to Public
- B. Section 02056: Common Fill
- C. Section 02324: Compaction

1.3 PAYMENT PROCEDURES

A. This work is considered incidental to other items and no separate measurement or payment will be made, except as described in this Section article 3.3, paragraph B for over-excavation directed by the Engineer, necessary import of suitable backfill material directed by the Engineer, or both.

PART 2 PRODUCTS Not used

PART 3 EXECUTION

3.1 PREPARATION

- A. Use the plan set for the structure design. The Engineer may order design changes in writing based upon differing site conditions.
- B. Provide a cofferdam for underwater work. Remove all cofferdams, sheeting, and bracing when no longer needed.

3.2 EXCAVATION

- A. Comply with all applicable regulations when excavating and trenching. Refer to Section 00820.
- B. Excavate rock and other hard strata to design elevation and dimensions.
 - 1. Clean and cut to a firm surface as shown in the plans. Foundation cannot contain loose material.
 - 2. Clean out seams and fill with concrete, mortar, or grout.
- C. Do not over-excavate unless directed by the Engineer.
 - 1. Excavate material unsuitable for the structure foundation to at least 1 ft below the design elevation.
 - 2. Excavate and waste unsuitable material to the depth directed.
- D. Clean the space under structures, in channels, and adjacent areas affected by operations to prevent drift and scour.
- E. Dispose of all unused excavation material as directed by the Engineer.

3.3 BACKFILL AND COMPACTION

- A. Refer to Sections 02056 and 02324.
- B. Excavation of unsuitable material and backfill:
 - 1. Cost of over-excavation, when directed by the Engineer, is paid as extra work.
 - 2. When suitable backfill material is not available from roadway excavation, use other imported suitable backfill material or granular backfill borrow when specified. Imported backfill material cost is paid as extra work and may include transportation or freight costs. Placement of imported backfill material is at no additional expense to the Department.

END OF SECTION

Structural Excavation 02317 - Page 2 of 2

SECTION 02748M

PRIME COAT/TACK COAT

Delete Article 2.1, Paragraph A., and replace with the following:

2.1 PRIME COAT

A. MC-70 or MC-250, meeting the requirements of Section 02745.

Delete Article 2.2, Paragraph A., and replace with the following:

2.2 TACK COAT

- A. CSS-1h emulsified asphalt meeting the requirements of Section 02745.
 - 1. Diluted 2:1 (two parts concentrate to one part water) by the manufacturer.
 - a) Dilute at terminal only.
 - b) Do not change dilution without obtaining prior written approval from the Engineer.

Delete Article 3.2, and replace with the following:

3.2 APPLICATION

- A. Apply at the following rates:
 - 1. Prime Coat: 0.5 gal/yd²
 - 2. Tack Coat: 0.15 gal/yd²

The above application rates may vary according to field conditions. Obtain approval for the quantities, rate of application, temperatures, and areas to be treated before any application.

- B. Do not apply prime coat or tack coat:
 - 1. On a wet surface.
 - 2. When the surface temperature is below 50 degrees F.
 - 3. When weather conditions prevent it from adhering properly.

- C. Protect all structures including guardrails, guide posts, etc. from being spattered or marred.
- D. Use a pressure distributor to apply the asphalt in a uniform, continuous spread.
- E. Keep the viscosity between 50 and 100 centistokes. AASHTO T 201.
- F. Immediately apply another application to under primed surface.
- G. Apply a prime or tack coat to all surfaces, including vertical that will come in contact with Hot Mix Asphalt.
- H. Spread blotter material if the prime coat fails to penetrate. Use the quantities required to absorb the excess asphalt.